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Conference Abstract

An Update on the Plant Phenology Ontology and Plant Phenology Data Integration

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Abstract

The study of plant phenology is concerned with the timing of plant life-cycle events, such as leafing out, flowering, and fruiting. Today, thanks to data digitization and aggregation initiatives, phenology monitoring networks, and the efforts of citizen scientists, more phenologically relevant plant data is available than ever before. Until recently, combining these data in large-scale analyses was prohibitively difficult because no standardized plant phenology terms and concepts were available to facilitate data interoperability. We have recently completed the first public release of The Plant Phenology Ontology (PPO), the result of a collaborative effort to develop the terminology, definitions, and term relationships that are needed for large-scale data integration and machine reasoning. We are currently using the PPO to join disparate plant phenology datasets into a single data resource. In this talk, I will give an introduction to the PPO, including the design of the ontology and examples with real phenological data, and I will present preliminary results of our initial experiments with integrating plant phenology data.

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Keywords

knowledge representation, knowledge engineering, data reuse

Presenting author

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